

This Page Is Inserted by IFW Operations  
and is not a part of the Official Record

## **BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning documents *will not* correct images,  
please do not report the images to the  
Image Problem Mailbox.**



39153/450  
PSH

COPY

FEBRUARY 11, 2002

PTAS

FOLEY & LARDNER  
PAUL S. HUNTER  
FIRSTAR CENTER  
777 EAST WISCONSIN AVENUE  
MILWAUKEE, WI 53202-5367

Under Secretary of Commerce For Intellectual Property and  
Director of the United States Patent and Trademark Office  
Washington, DC 20231  
[www.uspto.gov](http://www.uspto.gov)



\*101923808A\*

UNITED STATES PATENT AND TRADEMARK OFFICE  
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 12/11/2001

REEL/FRAME: 012381/0115  
NUMBER OF PAGES: 4

BRIEF: ASSIGNMENT OF ASSIGNEE'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:  
LUKANC, TODD P.

DOC DATE: 12/05/2001

ASSIGNOR:  
SPENCE, CHRISTOPHER A.

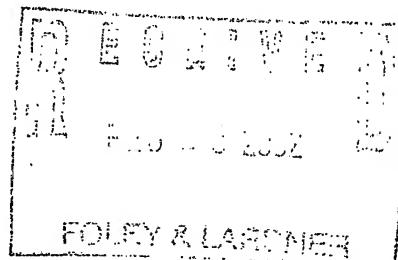
DOC DATE: 12/07/2001

ASSIGNEE:  
ADVANCED MICRO DEVICES, INC.  
1160 KERN AVENUE  
SUNNYVALE, CALIFORNIA 94088

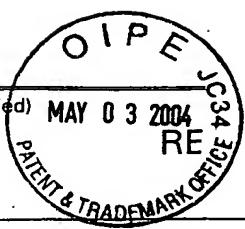
SERIAL NUMBER: 10016273  
PATENT NUMBER:

FILING DATE: 12/11/2001  
ISSUE DATE:

KIMBERLY WHITE, EXAMINER  
ASSIGNMENT DIVISION  
OFFICE OF PUBLIC RECORDS



2/19/02  
JL



12-26-2001



101923808

U.S. Dkt. No. 039153-0450 (G1155)

U.S. DEPARTMENT OF COMMERCE

SHEET

Patent and Trademark Office

To the Director of the United States Patent and Trademark Office: Please record the attached original documents or copies thereof.

1. Name of conveying party(ies):  Todd P. Lukanc Christopher A. Spence  <i>12/11/01</i>		2. Name and address of receiving party(ies):  Advanced Micro Devices, Inc. 1160 Kern Avenue Sunnyvale, CA 940 88
Additional conveying party(ies) NO  3. Nature of conveyance: <b>ASSIGNMENT</b>  Execution Date: 12/05/2001 & 12/07/2001 Respectively		Additional name(s) & address(es) attached? NO
4. Application number(s) or patent number(s):  If this is being filed together with a new application, the execution date of the application is: 12/05/2001 & 12/07/2001 Respectively		
A. Patent Application Number(s):		B. Patent Number(s):
Additional numbers attached? NO		
5. Name and address of party to whom correspondence concerning document should be mailed:  Paul S. Hunter FOLEY & LARDNER Firststar Center 777 East Wisconsin Avenue Milwaukee, Wisconsin 53202-5367		6. Total number of applications/patents involved: 1  7. Total fee (37 C.F.R. § 3.41): \$40.00  <input checked="" type="checkbox"/> Check Enclosed  Charge to deposit account  8. Deposit account number: 06-1447
DO NOT USE THIS SPACE		
9. Statement and signature:  <i>To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. The Commissioner is hereby authorized to charge any additional recordation fees which may be required in this matter to the above-identified deposit account.</i>		
Paul S. Hunter		 <i>Dec 11, 2001</i>
Name of person signing.		Signature
Total number of pages including cover sheet, attachments, and document: 4		

12/21/2001 TDIAZ1 00000143 10016273

01 FC:581

40.00 DP

001.1132178.1

**ASSIGNMENT AND AGREEMENT**

**WHEREAS**, Todd P. Lukanc of 1217 Rockhaven Drive, San Jose, CA 95120 and Christopher A. Spence of 1145 Andover Drive, Sunnyvale, CA 94087; (hereinafter referred to singly and collectively as "ASSIGNOR") have invented a certain invention entitled **METHOD OF ENHANCING CLEAR FIELD PHASE SHIFT MASKS WITH BORDER REGIONS AROUND PHASE 0 AND PHASE 180 REGIONS** (Atty. Dkt. No. 039153-0450 (G1155)) for which an application for United States Letters Patent was executed by ASSIGNOR concurrently herewith; and

**WHEREAS**, Advanced Micro Devices, Inc., a corporation duly organized and existing under the laws of the State of ASSIGNEE\_STATE\_INC, and having its principal place of business at 1160 Kern Avenue, Sunnyvale, CA 94088 (hereinafter referred to as "ASSIGNEE") is desirous of acquiring the entire interest therein;

**NOW THEREFORE**, in consideration of One Dollar (\$1.00) and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, ASSIGNOR has sold, assigned, and transferred, and by these presents hereby sells, assigns, and transfers, unto ASSIGNEE, its successors and assigns, the full and exclusive right, title, and interest in and to (a) the above-identified invention or inventions and all improvements and modifications thereof, (b) the above-identified application and all other applications for Letters Patent of the United States and countries foreign thereto for the above-identified invention or inventions and all improvements and modifications thereof, (c) all Letters Patent which may issue from said applications in the United States and countries foreign thereto, (d) all divisions, continuations, reissues, and extensions of said applications and Letters Patent, and (e) the right to claim for any of said applications the full benefits and priority rights under the International Convention and any other international agreement to which the United States adheres; such right, title, and interest to be held and enjoyed by ASSIGNEE, its successors and assigns, to the full end of the term or terms for which any and all such Letters Patent may be granted as fully and entirely as would have been held and enjoyed by ASSIGNOR had this Assignment not been made.

**ASSIGNOR HEREBY AUTHORIZES AND REQUESTS** the Commissioner of Patents and Trademarks to issue said Letters Patent to ASSIGNEE as assignee of the entire interest, for the sole use and benefit of ASSIGNEE, its successors and assigns.

**ASSIGNOR HEREBY AGREES** (a) to communicate to ASSIGNEE, its successors and assigns, or their representatives or agents, all facts and information known or available to ASSIGNOR respecting said invention or inventions, improvements, and modifications including evidence for interference, reexamination, reissue, opposition, revocation, extension, or infringement purposes or other legal, judicial, or administrative proceedings, whenever requested by ASSIGNEE; (b) to testify in person or by affidavit as required by ASSIGNEE, its successors and assigns, in any such proceeding in the United States or a country foreign thereto; (c) to execute and deliver, upon request by ASSIGNEE, all lawful papers including, but not limited to, original, divisional, continuation, and reissue applications, renewals, assignments, powers of attorney, oaths, affidavits, declarations, depositions; and (d) to provide all reasonable assistance to ASSIGNEE, its successors and assigns, in obtaining and enforcing proper

title in and protection for said invention or inventions, improvements, and modifications under the intellectual property laws of the United States and countries foreign thereto.

**ASSIGNOR HEREBY REPRESENTS AND WARRANTS** that ASSIGNOR has the full and unencumbered right to sell, assign, and transfer the interests sold, assigned, and transferred herein, and that ASSIGNOR has not executed and will not execute any document or instrument in conflict herewith.

**ASSIGNOR HEREBY GRANTS** to the law firm of Foley & Lardner the power and authority to insert in this Assignment any further identification which may be necessary or desirable to comply with the rules of the U.S. Patent and Trademark Office for recordation of this Assignment.

**ASSIGNOR UNDERSTANDS AND AGREES** that the attorneys and agents of the law firm of Foley & Lardner do not personally represent ASSIGNOR or ASSIGNOR's legal interests, but instead represent the interests of ASSIGNEE; since said attorneys and agents cannot provide legal advice to ASSIGNOR with respect to this Assignment, ASSIGNOR acknowledges its right to seek its own independent legal counsel.

Executed this 05 day of Dec, 2001

Todd P. Lukanc

TODD P. LUKANC

State of California,  
County of Santa Clara) ss.

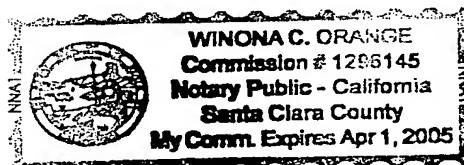
On this 5<sup>th</sup> day of DEC., 2001, before me, a notary public in and for said county, appeared TODD P. LUKANC, who is personally known to me to be the same person whose name is subscribed to the foregoing instrument, and he/she acknowledged that he/she signed, sealed, and delivered the said instrument as his/her free and voluntary act for the uses and purposes therein set forth.

Winona C. Orange

Notary Public

My Commission Expires: 04/01/05

(Seal)



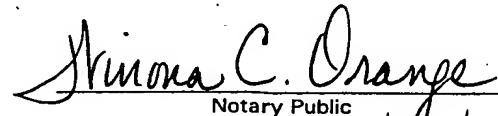
Executed this 07 day of December, 2007.



CHRISTOPHER A. SPENCE

State of California, ss.  
County of Santa Clara

On this 7<sup>th</sup> day of DEC., 2001, before me, a notary public in and for said county, appeared CHRISTOPHER A. SPENCE, who is personally known to me to be the same person whose name is subscribed to the foregoing instrument, and he/she acknowledged that he/she signed, sealed, and delivered the said instrument as his/her free and voluntary act for the uses and purposes therein set forth.

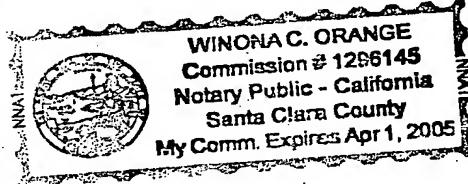


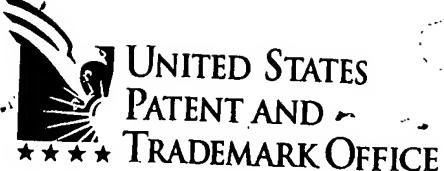
Winona C. Orange

Notary Public

My Commission Expires: 04/01/05

(Seal)





APRIL 10, 2002

FOLEY & LARDNER  
PAUL S. HUNTER  
FIRSTAR CENTER  
777 EAST WISCONSIN AVENUE  
MILWAUKEE, WISCONSIN 53202-5367

04102/444  
JNZ  
**COPY**  
Chief Information Officer  
Washington, DC 20231  
[www.uspto.gov](http://www.uspto.gov)



\*102038441A\*

UNITED STATES PATENT AND TRADEMARK OFFICE  
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

**CORRECTED  
NOTICE**

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 12/11/2001

REEL/FRAME: 012389/0103  
NUMBER OF PAGES: 4

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

LUKANC, TODD P.

DOC DATE: 12/05/2001

ASSIGNOR:

SPENCE, CHRISTOPHER A.

DOC DATE: 12/07/2001

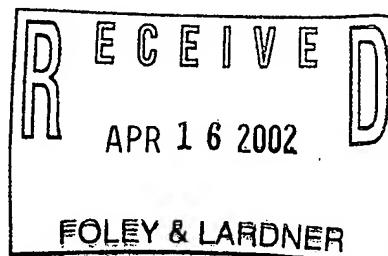
ASSIGNEE:

ADVANCED MICRO DEVICES, INC.  
1160 KERN AVENUE  
SUNNYVALE, CALIFORNIA 94088

SERIAL NUMBER: 10016702  
PATENT NUMBER:

FILING DATE: 12/11/2001  
ISSUE DATE:

JACQUELINE MOORE, PARALEGAL  
ASSIGNMENT DIVISION  
OFFICE OF PUBLIC RECORDS



APR 16 2002  
JNZ

MAY 03 2004



04-03-2002



App. Dkt. No. 039153-0449 (G1154)

U.S. DEPARTMENT OF COMMERCE

Patent and Trademark Office

SHEET

102038441

To the Director of the United States Patent and Trademark Office: Please record the attached original documents or copies thereof.

1. Name of conveying party(ies):

Todd P. Lukanc  
Christopher A. Spence

12-11-0

2. Name and address of receiving party(ies):

Advanced Micro Devices, Inc.  
1160 Kern Avenue  
Sunnyvale, CA 94088

J1050 U.S. PRO  
10/016702  
12/11/01

Additional conveying party(ies) NO

3. Nature of conveyance:

ASSIGNMENT

Execution Date:  
12/05/2001 & 12/07/2001 Respectively

Additional name(s) & address(es) attached? NO

4. Application number(s) or patent number(s):

If this is being filed together with a new application, the execution date of the application is: 12/05/2001 &  
12/07/2001  
Respectively

10,016702  
A. Patent Application Number(s):

B. Patent Number(s):

Additional numbers attached? NO

5. Name and address of party to whom correspondence concerning document should be mailed:

Paul S. Hunter  
FOLEY & LARDNER  
Firststar Center  
777 East Wisconsin Avenue  
Milwaukee, Wisconsin 53202-5367

6. Total number of applications/patents involved: 1

7. Total fee (37 C.F.R. § 3.41): \$40.00

Check Enclosed

Charge to deposit account

8. Deposit account number: 06-1447

DO NOT USE THIS SPACE

9. Statement and signature:

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. The Commissioner is hereby authorized to charge any additional recordation fees which may be required in this matter to the above-identified deposit account.

Paul S. Hunter

Signature

Dec. 11, 2001

Date

Name of person signing

2/27/2001 DBYRNE 00000044 10016702

Signature

40.00 Total number of pages including cover sheet, attachments, and document: 4

D1 FC:581

12-28-2001

Dkt No. 039153-0449 (G1154)

FORM PTC-1595 (modified)  
(Rev. 6-93)

RE



U.S. DEPARTMENT OF COMMERCE

Patent and Trademark Office

SHEET

101927180

To the Director of the United States Patent and Trademark Office: Please record the attached original documents or copies thereof.

## 1. Name of conveying party(ies):

Todd P. Lukanc  
Christopher A. Spence

12-11-01

## 2. Name and address of receiving party(ies):

Advanced Micro Devices, Inc.  
1160 Kern Avenue  
Sunnyvale, CA 94088

J1050 U.S. PTO  
10/016702  
12/11/01

Additional conveying party(ies) NO

## 3. Nature of conveyance:

ASSIGNMENT

## Execution Date:

12/05/2001 &amp; 12/07/2001 Respectively

Additional name(s) &amp; address(es) attached? NO

## 4. Application number(s) or patent number(s):

If this is being filed together with a new application, the execution date of the application is: 12/05/2001 &  
12/07/2001  
Respectively

10,016702

## A. Patent Application Number(s):

## B. Patent Number(s):

Additional numbers attached? NO

## 5. Name and address of party to whom correspondence concerning document should be mailed:

Paul S. Hunter  
FOLEY & LARDNER  
Firststar Center  
777 East Wisconsin Avenue  
Milwaukee, Wisconsin 53202-5367

6. Total number of applications/patents involved: 1

7. Total fee (37 C.F.R. § 3.41): \$40.00

 Check Enclosed

Charge to deposit account

8. Deposit account number: 06-1447

DO NOT USE THIS SPACE

## 9. Statement and signature:

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. The Commissioner is hereby authorized to charge any additional recordation fees which may be required in this matter to the above-identified deposit account.

Paul S. Hunter

Dec. 11, 2001

Name of person signing  
2/27/2001 DBYRNE 00000044 10016702

Signature

Date

1 FC:581

40.00 Total number of pages including cover sheet, attachments, and document: 4

**ASSIGNMENT AND AGREEMENT**

**WHEREAS**, Todd P. Lukanc of 1217 Rockhaven Drive, San Jose, CA 95120 and Christopher A. Spence of 1145 Andover Drive, Sunnyvale, CA 94087; (hereinafter referred to singly and collectively as "ASSIGNOR") have invented a certain invention entitled **METHOD OF ENHANCING CLEAR FIELD PHASE SHIFT MASKS BY ADDING PARALLEL LINE TO PHASE 0 REGION** (Atty. Dkt. No. 039153-0449 (G1154)) for which an application for United States Letters Patent was executed by ASSIGNOR concurrently herewith; and

**WHEREAS**, Advanced Micro Devices, Inc., a corporation duly organized and existing under the laws of the State of Delaware, and having its principal place of business at 1160 Kern Avenue, Sunnyvale, CA 94088 (hereinafter referred to as "ASSIGNEE") is desirous of acquiring the entire interest therein;

**NOW THEREFORE**, in consideration of One Dollar (\$1.00) and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, ASSIGNOR has sold, assigned, and transferred, and by these presents hereby sells, assigns, and transfers, unto ASSIGNEE, its successors and assigns, the full and exclusive right, title, and interest in and to (a) the above-identified invention or inventions and all improvements and modifications thereof, (b) the above-identified application and all other applications for Letters Patent of the United States and countries foreign thereto for the above-identified invention or inventions and all improvements and modifications thereof, (c) all Letters Patent which may issue from said applications in the United States and countries foreign thereto, (d) all divisions, continuations, reissues, and extensions of said applications and Letters Patent, and (e) the right to claim for any of said applications the full benefits and priority rights under the International Convention and any other international agreement to which the United States adheres; such right, title, and interest to be held and enjoyed by ASSIGNEE, its successors and assigns, to the full end of the term or terms for which any and all such Letters Patent may be granted as fully and entirely as would have been held and enjoyed by ASSIGNOR had this Assignment not been made.

**ASSIGNOR HEREBY AUTHORIZES AND REQUESTS** the Commissioner of Patents and Trademarks to issue said Letters Patent to ASSIGNEE as assignee of the entire interest, for the sole use and benefit of ASSIGNEE, its successors and assigns.

**ASSIGNOR HEREBY AGREES** (a) to communicate to ASSIGNEE, its successors and assigns, or their representatives or agents, all facts and information known or available to ASSIGNOR respecting said invention or inventions, improvements, and modifications including evidence for interference, reexamination, reissue, opposition, revocation, extension, or infringement purposes or other legal, judicial, or administrative proceedings, whenever requested by ASSIGNEE; (b) to testify in person or by affidavit as required by ASSIGNEE, its successors and assigns, in any such proceeding in the United States or a country foreign thereto; (c) to execute and deliver, upon request by ASSIGNEE, all lawful papers including, but not limited to, original, divisional, continuation, and reissue applications, renewals, assignments, powers of attorney, oaths, affidavits, declarations, depositions; and (d) to provide all reasonable assistance to ASSIGNEE, its successors and assigns, in obtaining and enforcing proper

title in and protection for said invention or inventions, improvements, and modifications under the intellectual property laws of the United States and countries foreign thereto.

**ASSIGNOR HEREBY REPRESENTS AND WARRANTS** that ASSIGNOR has the full and unencumbered right to sell, assign, and transfer the interests sold, assigned, and transferred herein, and that ASSIGNOR has not executed and will not execute any document or instrument in conflict herewith.

**ASSIGNOR HEREBY GRANTS** to the law firm of Foley & Lardner the power and authority to insert in this Assignment any further identification which may be necessary or desirable to comply with the rules of the U.S. Patent and Trademark Office for recordation of this Assignment.

**ASSIGNOR UNDERSTANDS AND AGREES** that the attorneys and agents of the law firm of Foley & Lardner do not personally represent ASSIGNOR or ASSIGNOR's legal interests, but instead represent the interests of ASSIGNEE; since said attorneys and agents cannot provide legal advice to ASSIGNOR with respect to this Assignment, ASSIGNOR acknowledges its right to seek its own independent legal counsel.

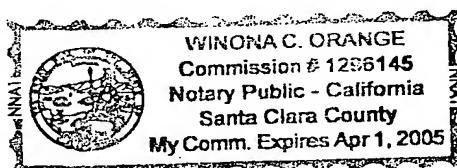
Executed this 05 day of Dec, 2001.

State of California,  
County of Santa Clara)

Todd P. Lukanc  
TODD P. LUKANC

On this 5<sup>th</sup> day of DEC., 2001, before me, a notary public in and for said county, appeared TODD P. LUKANC, who is personally known to me to be the same person whose name is subscribed to the foregoing instrument, and (he/she) acknowledged that (he/she) signed, sealed, and delivered the said instrument as his/her free and voluntary act for the uses and purposes therein set forth.

(Seal)



Winona C. Orange  
Notary Public

My Commission Expires: 04/01/05

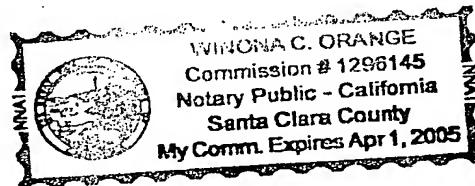
Executed this 07 day of December 2001.

State of California,  
County of Santa Clara, ss.

CHRISTOPHER A. SPENCE

On this 7<sup>th</sup> day of DEC., 2001, before me, a notary public in and for said county, appeared CHRISTOPHER A. SPENCE who is personally known to me to be the same person whose name is subscribed to the foregoing instrument, and he/she acknowledged that he/she signed, sealed, and delivered the said instrument as his/her free and voluntary act for the uses and purposes therein set forth.

(Seal)



Winona C. Orange  
Notary Public

My Commission Expires: 04/01/05